Irish H & V News

IRISH H&V NEWS

DECEMBER 1985 IRELAND'S BUILDING SERVICES MAGAZINE

Seasons Greetings to All Our Readers

https://arrow.tudublin.ie/bsn/vol24/iss12/1
DOI: 10.21427/D7TD7F

IN THIS ISSUE

IRISH H&V NEWS
IRELAND'S BUILDING SERVICES MAGAZINE

Published by: Irish Trade & Technical Publications Ltd, 5/7 Main Street, Blackrock, Co Dublin, Tel: 885001 Telex: 92258.

Managing Director: Gerard J Murphy
Editor: Patrick Lehane
Advertisement Manager: Joe Warren

Origination and Design by: Belinda Promotions, 18 Herbert Street, Dublin 2. Tel: 01-763077.

Northern Advertisement Representative: Carol Redfern 12 Mount Charles, Belfast BT7 1N2. Tel: Belfast 247427
Subscription: One year £20.
Printed by: Mercury Print Ltd, 5/7 Main St, Blackrock, Co Dublin.

Irish Heating & Ventilating News circulates to key executives in the heating, ventilating, air conditioning, refrigeration, sanitaryware, plumbing and environmental control industries. Its circulation also includes energy managers, architects, designers, sanitary engineers, environmental engineers and building merchants in the 32 counties of Ireland.

ABC

DUBLIN GAS AT NORTHSIDE

IN THE Northside Shopping Centre, Coolock, a new appliance showroom for Dublin Gas was opened recently by the Chairman of the Dublin Gas Company, Michael McStay.

Dublin Gas now has four retail outlets in operation — the main showrooms in D'Olier Street which have been redesigned in recent years to show a modern range of appliances to good advantage; the Dun Laoghaire showrooms and new outlets in Crumlin Shopping Centre and Northside.

Speaking to Marketing Department staff at a reception following the opening, Mr McStay congratulated them for what he termed "a remarkable performance" in increasing gas sales during 1984 by 71% and being on target to double sales in 1985.

However, he reminded them that much of the increase in gas sales was due to winning over Dublin industries and large commercial users to natural gas.

"The task ahead will be even more challenging", Mr McStay said. "From now on our efforts must be concentrated on the premium market — domestic and small commercial users. Over the next few years, we must increase premium sales fourfold, win 50,000 new customers and sell 150,000 new appliances.

• *Michael McStay, Chairman of Dublin Gas Company, speaking to staff after he had cut the tape to open a new appliance showroom in Northside Shopping Centre, Coolock.*

Walker Set Record With Liebert

WALKER AIR Conditioning were recently presented with a "Plus Performers" award by the Liebert Corporation, in recognition of outstanding sales performance during 1984. Walker Air Conditioning achieved record bookings with Liebert by closing a number of major projects with companies such as Britoil, Telecom Eireann, AIB Donnybrook, AIB Ballsbridge, Calma, Mostek, Hewlett Packard, TSB, Royal Bank of Scotland and Thompson Publications.

These contracts involved supplying precision air conditioning and power protection and control systems for data processing or related applications.

Liebert International design, manufacture and market a complete range of this type of specialist equipment and Walker Air Conditioning hold the franchise for Scotland and the whole of Ireland. During 1984 Walker were responsible for introducing Liebert orders to the value of £1 million.

• *Jim Anderson, Managing Director, pictured receiving the "Plus Performers" award for Walker Air Conditioning, presented by Noel Kelley, Sales Manager, Liebert Corporation.*

• *FIRE INDUSTRY ASSOCIATION OF IRELAND – Pictured at a press reception to announce two new full members who have been admitted into The Fire Industry Association of Ireland were John Lehane, Institution of Fire Engineers; Alex Wadkin, Chairman, Fire Industry Association of Ireland; and Pat Costello, Chief Executive, Fire Prevention Council. The FIA of Ireland recently staged their annual 2-day exhibition covering Fire Prevention, Safety & Security industries, which attracted over 50 exhibitors. The two new members which Alex Wadkin, Chairman of the Association introduced are Midland Fire Prevention of Mullingar and Western Fire Protection from Co Galw[illegible]*

Cochran Coalmaster For ASAHI

THE COCHRAN unit of NEI International Combustion Ltd have signed a contract with Asahi Synthetic Fibres Ltd covering boiler equipment for their Killala Plant.

Delivery of the Cochran twin furnace chain grate fired Coalmaster boiler is scheduled for early 1986. The construction of the boiler will be in accordance with British Standard BS.2790: 1982 and will have a nominal output of 28,000 lbs/hr (12705 KG per hr) and a working pressure of 220 p.s.i. (1.52 N/MM2). This contract includes the boiler, two triumph chain grate stokers, ash and coal handling equipment and associated instrumentation and controls.

Cochran have a service and spares facility in the Republic of Ireland but boiler sales are via their agent HR Holfeld (Engineering) Ltd.

Energy Efficiency / International Hevac '86

THERE WILL be an opportunity for manufacturers of energy-efficient products to reach a much bigger audience as a result of the latest move by Industrial & Trade Fairs to expand International HEVAC '86, (National Exhibition Centre 11-15 May 1986).

ITF has sent invitations to more than 150 specialist companies — over 60 of whom took part in the International Energy Efficiency Show in Brighton (September 1985). "Substantial" space has been allocated for this sector at the National Exhibition Centre next May.

"We shall be featuring this highly-topical industry as part of the Building Services section in what will be Energy Efficiency Year," explains show Manager Eric Gosden.

A frog in the throat.

When a male reed frog a-wooing-goes he first attracts the ladies' attention with a romantic serenade.

The tune is produced by the vibration of a pair of skin folds in the vocal cords. Air is passed backwards and forwards between the lungs and the large vocal pouch which inflates and deflates just like a balloon.

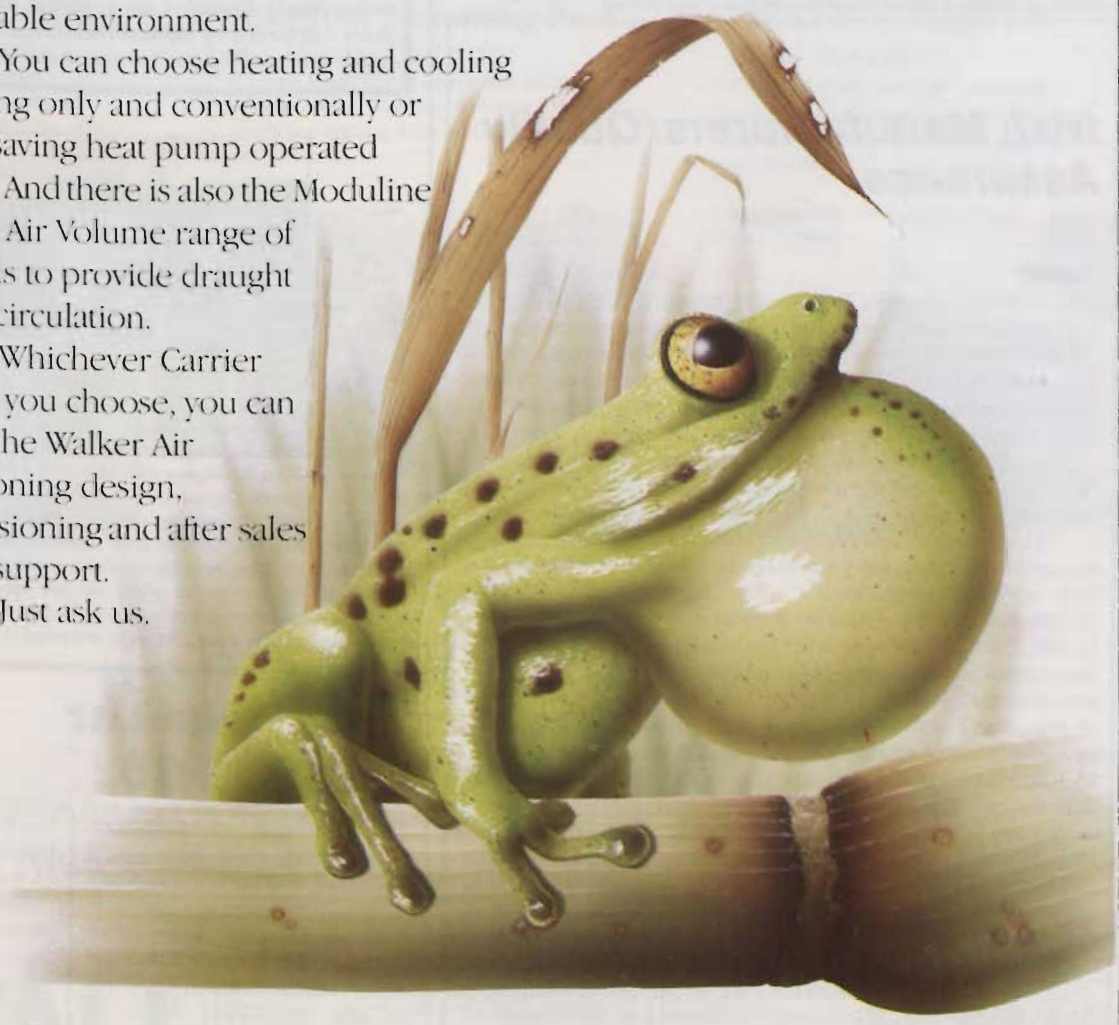
In offices, shops, pubs, clubs and restaurants one of the best ways of keeping the ladies, and the gentlemen, sweet is to ensure that the atmosphere is temperature controlled and at the correct humidity level.

That's where Carrier come in. Their elegant range of packaged and split air conditioning units is designed to quietly and efficiently create a comfortable environment.

You can choose heating and cooling or cooling only and conventionally or energy saving heat pump operated models. And there is also the Moduline Variable Air Volume range of terminals to provide draught free air circulation.

Whichever Carrier product you choose, you can rely on the Walker Air Conditioning design, commissioning and after sales service support.

Just ask us.



Carrier

world leader in air conditioning and heating technology

WALKER AIR CONDITIONING

Dublin	Belfast	Glasgow
300844	02318 5234	041-887 0551

A member of the Jefferson Smurfit Group

Dunsley/ Baker Circuit Neutralizer

DUNSLEY HEATING Appliance Co Ltd, Holmfirth have agreed an arrangement with John Baker, Downpatrick, Co Down, Northern Ireland, to manufacture and sell under license in England, Scotland, Wales, Isle of Man and Channel Islands the patented Baker Circuit Neutralizer. This system has been well tried over the past three years in over 2,500 installations throughout the British Isles.

The Dunsley/Baker Neutraliser allows two or more boilers of different types to be fitted into one system without the use of expensive control valves (no moving parts to go wrong). Operation is simple and safe in use and prevents hot water circulating through either boiler when not in operation. The Dunsley/Baker Neutralizer is an ideal method to allow oil, gas or solid fuel-fired Boiler Systems to be used in conjunction.

Available in two alternative forms — circular for easy fitting beneath the normal hot water cylinder in either 15" or 18" diameter size. The Neutralizer can be used as a strong solid base for the cylinder or at a point in the cylinder cupboard just below the cylinder. Alternatively it is available in "Box" format for installation at the most convenient position within the heating system circuit.

• *The Dunsley Baker Converter designed for installation beneath the hot water cylinder, providing a strong sound base and easy pipe access.*

GRUNDFOS STRATEGY PAYS OFF

DESPITE THE difficult year that has been in it, the recent 12-month review of the Grundfos performance since they opened their Irish operation has shown the move to have paid the expected dividend.

General Manager, Dermot Murphy is reportedly well pleased with the first year result, and especially so with the increased market share Grundfos has won in the domestic sector.

This Mr Murphy attributes to the higher profile afforded by the Grundfos Ireland operation and the increased marketing operation undertaken over the 12-month period.

While the general economic forecast for the next 12 months is still rather bleak, Grundfos are confident of increasing their market share still further by virtue of the strengthened distribution network which resulted from the opening of the Irish factory.

Irish Manufacturers/Quality Assurance

Dear Sir

"IN 1982 a Government Department issued a circular stating that Irish Manufacturers were to be given every opportunity to tender.

"We (VMRA) responded to this circular by drawing up a list of Irish manufacturers. This list contained many companies whose products were well known to us. It also contained names of companies who had little or no track record.

"We discussed with the Government Department in question the possibility of having a body such as the IIRS examine Irish manufactured products with a view to assessing their quality.

"The Irish Standards Authority attached to the IIRS is now in existence. This Authority has recently issued IS 300 which is an Irish Standard Specification:-

IS 300: Part 1: 1984 — Quality System Requirements —
IS 300 : Part 2 : 1984 — Quality System Requirements — Demonstration of design, development, production and installation capability;
IS 300 : Part 2 : 1984 — Quality System Requirements — demonstration of production and installation capability;
IS 300 : Part 3 : 1984 — Quality System Requirements — demonstration of final inspection and test capability.

"We are heartened to see that some Irish manufacturers are actively seeking the stamp of approval from the Irish Standards Authority. We are also pleased to be able to report that some of these companies are performing very well for us on a number of current projects.

"On another front — I am also part of a CIBSE sub-committee dealing with Quality Assurance. We are active in monitoring Irish manufacturers, have visited factories and commented on products when requested. In this way the Chartered Institution of Building Services Engineers would hope to play their part in the whole effort towards import substitution and job creation.

"There are indications, too, that Quality Assurance may extend into the design only section of the industry.

• *Liam Stenson, Managing Director, IBS Ltd, with J.J. Byrne, Mechanical Engineer, Atlantic Project Co., Paul Carey, Estimator, Atlantic Project Co., James Creane, Purchasing Officer, Atlantic Project Co., Sean Quinn, Managing Director, Central Eng. Services, and Pat Lyons, Sales Director, Lindapter Ltd. They were pictured at a recent technical presentation given by Irish Building Services at which the full range of Lindapter girder clamp products was on show and the newer pipe supports were introduced. It was also a celebration of Lindapter's 50 years in business.*

The "Walker Cup" 1985

JIM FISHER of Scotsman Newspapers was this year's winner of Walker's annual Golf Tournament, held at Gleddock Golf & Country Club, near Glasgow. Mr Fisher's handicap was 11 and he attained 39 points by the Stableford rules of competition. D Marmion of ACTS was placed 2nd with a handicap of 19, attaining 37 Stableford points. In 3rd place was S Diggin of Douglas Mackenzie and Associates who had a handicap of 12 and gained 33 Stableford points.

The "Walker Cup" was presented to Mr Fisher at a dinner and cabaret which followed. There was also a prize awarded to the best placed member of Walker personnel. This was won by R McCoosh of the Belfast office, with a handicap of 12 and a Stableford point total of 34.

Electric Heat Pumps...

the choice of all progressive Consulting Engineers and Architects

The Heat Pump has already done much to change the face of heating and air-conditioning systems throughout Europe, where already many thousands have been installed. Its unique ability to reverse its cycle of operation has made it the most sophisticated, energy-saving way of both heating and cooling premises. The Heat Pump at night-rate electricity is unbeatable value at less than 30p per delivered therm. The other advantages are: ease of installation, low running and maintenance costs.
Now, in Ireland, the Heat Pump has been put to the test and the results speak for themselves.

Dunnes Stores, Limerick
Better Value Heating:
At Dunnes, space is at a premium, controllability and reliability essential. Three Heat Pumps, installed on the roof, provide heating and cooling as required.

Askeaton Swimming Pool
It's Warm Outside:
A single Heat Pump keeps this outdoor pool at 26°C – warmer than many indoor pools but costing a lot less (£656 May-September).

AIB Office, Blackrock
Heat Pumps – The Wise Investment:
In this case six small independent units provide heating and cooling quietly and economically.

UNIQUE FEATURES:

One System heating and cooling.

Small package.	Choice of system.
No Flue.	Sizes to suit all needs.
No fuel storage.	Types for all situations.

Why not arrange for an ESB advisor to call and discuss this up-to-the-minute system.

Contact your local ESB District Office or phone 01-765831 Extension 7236.

INSTALLELECTRIC ESB

Electricity–High on Efficiency–Low on Costs

Enquiry Code No. 3

Domestic Central Heating - UK Trends

THE LATEST report from Marketing Strategies for Industry in the MSI Database series analyses the domestic central heating market and industry in the UK. It examines the current state, recent trends and future prospects of the markets for boilers and systems, radiators and parts. It also analyses major companies active in this market.

Nineteen eighty four saw a small decline in the market for central heating boilers after two years of growth. To some extent the miners strike in 1984 is blamed for the lack of growth in the market last year, though of much greater concern to the industry must be the fact that it was the UK-produced goods that suffered from the decline in demand.

Gas is still the leading type of central heating system installed in the UK, though an analysis of the last five years clearly indicates that electrical systems are gaining in popularity. At the same time solid fuel systems have declined in terms of proportional importance over the last two years and there is also evidence that a small revival in oil-based systems has occured.

One of the more surprising findings of the report is that, while boiler sales declined, the consumption of radiators increased in 1984 in terms of value. This is attributed to price increases and in real terms the market appears also to have declined. Again this follows a few years when growth has been promising.

Nonetheless, it is clear that the market will become increasingly competitive, and MSI believe that the current market participants should now examine their position in the market very carefully. The industry has significant potential for new designs and ideas, and innovation may well be the key to future growth for individual suppliers.

• *Hugh Maguire with Jim Maher of the CIS prior to the recent lecture meeting at the Engineers Club, Clyde Road.*

• *Jim Maher, CIS, (left) pictured with the group in attendance at the Engineers Club recently for the lecture by Hugh Maguire.*

https://arrow.tudublin.ie/bsn/vol24/iss12/1
DOI: 10.21427/D71D7F

Enquiry Code No. 5

16 GUARANTEED BENEFITS

1. Remove tobacco smoke.
2. Destroy airborne bacteria.
3. No arcing or crackling.
4. Heating costs slashed.
5. Only 7 inches in depth.

Plus....

6. Retains warm air in winter and cool air in summer.
7. Keeps fabrics fresh and appealing.
8. Alleviates soiling of walls and ceilings.
9. Awake to that clear mountain air feeling!
10. As cheap to run as a light bulb.
11. Keeps reformed smokers happy.
12. Reduces external noise and draughts.
13. No odour or ozone smell.
14. Elegant design to blend with your decor.
15. Relieves hay fever, sinus and bronchitis, etc.
16. Shows that you care about your customers lth and comfort.

purified air

Purified Air is a new patented German invention that is a 3 stage cleaning process.

Stage 1 — draws all the air in your premises into a bed of carbon crystals which absorbs all the smoke, smells, dust, fumes — even airborne bacteria — leaving air clean, fresh and infection free.

Stage 2 — ionizes and revitalizes the purified air alleviating many afflictions such as migraine, catarrah, sinus etc.

Stage 3 — which is optional, will emit a hint of apple fragrance keeping your premises fresh and pleasant all day.

SURPRISE! These units are available from as little as 84p per day.

BONUS

★ ★ NO MAINTENANCE ★ ★

UNDER NORMAL CONDITIONS ALL YOU HAVE TO DO IS REPLACE THE CARBON CRYSTALS ONCE A YEAR.

Further details from the Sole Irish Agency:
CLEAN AIR SYSTEMS,
Coolshannagh, Monaghan
or Ring our Sales Manager at
(051) 81224.

AGENTS/DISTRIBUTORS REQUIRED FOR SOME PARTS OF IRELAND.

Shower Lux From Shires

IF ITS showers, shower enclosures, folding doors or pivot doors you require, then Shires Ireland have the answer.

One of the most successful and popular products marketed throughout Ireland is the ShowerLux Exclusive — a folding door. This enclosure is so designed that it can open to its left or to the right, thus giving full width access to the shower.

There is also a new enclosure from ShowerLux called Pirouette, which is a pivot door. This door is supplied in a choice of sophisticated smoked plain or smoked patterned toughened safety glass. It has full height water seals with self-closing pivot units plus anti-drip channels.

The Pirouette can be installed for either left or right hand opening, with no modification needed. It is supplied pre-assembled for fast fitting.

ULSTER NEWS

The Professional Bodies - Have They a Future?

Over the last few weeks the Honorary Secretaries of the various professional bodies in the North have begun to circulate their members of the lectures, seminars etc, which they have planned for the coming winter. In addition to these items, will be one other — the Annual Dinner of the relevant body.

Prior to the publication of the Winter Programme, a small group of enthusiasts will have given up their evenings to act as a Committee to plan the events. It may surprise many to know that this is a painful process involving much brain searching and worry. Following the finalising of the event, a search has to be made for a venue, accommodation booked and circulars prepared.

Time will pass, and eventually the date will arrive for the proposed lecture or discussion. A nervous Chairman and his Secretary will await the multitude, which, if it is a good night, will turn out to be a couple of dozen stalwarts.

It is at this point one must ask: Was all the effort worthwhile? Followed by the second and possibly more important — is there a place for the monthly lecture meeting in the modern society?

Professional institutes were for many years the meeting place and the forum for the more practical engineers. Membership was the product of night school working apprenticeship which was obtained as the result of hard work and ambition.

Night schools have been replaced by day release, apprenticeship as we know it has been disbanded, and the minimum entrance to the professional institute is by University degree, and possibly an Honours Degree at that.

In taking the course that they have, the writer believes that the institutes have been forced into a situation for which they were not intended and which will eventually lead to their demise, especially the smaller specialist bodies.

To return to the subject of lectures, etc, it is becoming increasingly obvious that with the alternatives of late night shopping, pub life, television, especially sports coverage and such similar distractions — sitting in a lecture theatre does not appear attractive.

Institutes will persist in trying to hold monthly meetings, thus a look at the overall calendar shows that practically every night of the week holds a meeting.

It is essential that, if the bodies are to survive, they must first of all reduce the number of meetings to say about four per Winter session. Secondly, there should be an amalgamation of meetings. For example, one of the popular "subjects" at the moment is that of energy conservation. Examination of programmes will show that practically every association is mounting a lecture on this subject. Would one good lecture not be enough subject to the fact that it was circulated and sponsored by all the associations?

It is also possible that, if meetings were mounted in this form, company sponsorship could be obtained and pooling of resources would result in greater publicity and facilities being available.

The possible attendance of a broader strain of people on a regular basis could prove more attractive to many people and it would be hoped that the attractions of such a gathering would induce people to give up the alternatives for at least one night.

The attendance at the various annual dinners shows that people will come out. Annual dinners draw between 100 and 200 and in fact one or two are limited only by the size of the available accommodation. If a minor form of refreshment, like a light buffet was served at the lectures and a nominal charge made, would the same numbers turn out? It should be worth a try.

The Annual General Meeting of most institutes is a dismal affair with the same bunch of enthusiasts occupying the chairs. However, one body provides a light buffet and a drink out of its funds for the Annual General Meeting and over a quarter of the membership usually turns up. Surely there is a moral here.

Finally, if institutes and such like bodies are to survive there must be a re-think in how they operate. They must cease to be so insular and lean more to the discussion type evening, together with the realisation that modern society has different standards to those on which the institutes were based and which they still are reluctant to change.

GRUNDFOS DOMESTIC CIRCULATORS at the heart of home heating

The Grundfos Selectric Mk. II domestic circulator incorporates an energy saving three speed motor, together with two performance ranges providing six duties for precise pump to system matching and consequent elimination of hydraulic noise. Pump components in stainless steel and ceramics provide long life and maximum resistance to corrosion. This compact, easy to install pump is equally suitable for conventional systems, low water content and small back boiler installations covering heating systems up to 120,000 btu's/hr. Our pump to pipework fittings and adaptors make installation simple, and enable easy interchange when replacing the vast majority of old pumps.
Low performance range is achieved by simply removing a small screw in the inlet port, before installation.

Enquiry Code No. 6

GRUNDFOS SELECTRIC Mk II

A THREE SPEED PUMP WITH TWO PERFORMANCE RANGES TO COVER VIRTUALLY ALL DOMESTIC HEATING DUTIES UP TO 120,000 BTU'S/HR

REPLACING OLD PUMPS WITH GRUNDFOS SELECTRIC Mk II 130 mm

Any of the following makes can be replaced simply and quickly using the fittings shown

Model Port-to-Port (mm)		Fittings Req'd
130	Euramo MX 25/130	—
	Euramo MXL 130	—
	Euramo MX 130/A	—
	Grundfos Series 4/130	—
	Grundfos Super 4/130	—
	Grundfos Super 4/2 Sp	—
	Grundfos Selectric 4	—
	Grundfos 15/45	—
	Myson Unit 2	—
	Myson Unit 3	—
	Sundstrand LC	—
	Sundstrand Myson LC	—
	SMC Commodore 130	—
	SMC Comet 130	—
	SMC Commodore 130/55	—
	Verna VA 20/20 Zn	—
	Verna 22	—
	Wilo 25/50-60-70	—
	Smedagaard 2-65-2	—
	Smedagaard 2-70-2	—
160	SMC Cadet 'S'	■
	SMC Cadet Mini	■
180	Euramo Series D	■■
	Euramo MX 25/180	■■
	Euramo MXL 180	■■
	Euramo MX 180/A	■■
	Grundfos Series 2000	■■
	Grundfos Series 3000	■■
	Grundfos Series 4/180	■■
	Grundfos Super 4/180	■■
180	Grundfos Super 4/2 Sp	■■
	Grundfos Selectric 4	■■
	SMC Commodore	■■
	SMC Commander 'S'	■■
	SMC Cadet 'E'	■■
	SMC Commander 'E'	■■
	SMC Admiral 'E'	■■
	Thermopak A1/A2	■■
197	BSA Junior	●●■
	BSA Compact Compact 10	●●■
	CH 5	●●■
	CH 10	●●■
203	BSA HCP	▲●■■
	Thermopak CR1/CA1	▲●■■
216	SMC Cadet	●●
	SMC Commander	●●
	SMC Admiral	●●
219	BSA Opiomatic	●●■■
120	Selectric 4 flanged (UP or UPS 21/45)	*
	SMC Commodore	*
	Sundstrand Highflow	*
	Sundstrand Starflow	*
	Sundstrand Loflow	*
	Sundstrand Maxi	*
	Sundstrand Midi	*
	Sundstrand Myson LA	*
	Sundstrand Tropic	*
	Myson 120 F unit 3	*

Note: Standard 1½" Union nuts and gaskets also available

GRUNDFOS

Way out front in quality and service

Grundfos (Ireland) Limited,
Unit 34, Stillorgan Industrial Park, Blackrock, Co. Dublin.
Telephone (01) 954926. Telex: 90544.

Reconair Self-Analysis

In keeping with their emphasis on quality manufacturing with a view to import substitution, Reconair Manufacturing recently embarked on a brave self-analysis programme which exposed them, warts and all, to some of the country's foremost consultants involved in the building services sector. This bold initiative on the part of Chairman Fred Cooney and his management team had a two-fold purpose.

First and foremost the invited guests were free to scrutinise the entire manufacturing process, following which they were given a questionnaire on which they could submit their comments as to how they rated the set up. Secondly, the intention was that they could also engage in discussion with the Reconair representatives with a view to explaining just what precisely they felt any manufacturing process in the building services sector should be providing.

For their own interests Reconair collated the contents of the completed questionnaires and will obviously be incorporating the findings into their future plans. However, in order that we at *H&V News* could report on the experiment impartially, we requested — and were given — the completed questionnaires.

• *Eamonn Weir, IDA with Ned Creane, Delap & Waller and Bill Ahearn, Reconair Manufacturing.*

It is important to point out that, while we know the contents of the overall analysis, we could not associate particular individuals with specific forms since it was done on a "number" basis.

We do, however, know the names of those who were present on the "open day" and can confirm that they represented a cross-section of the foremost consultancies in the country.

Considering that the Reconair Group is based on the original success of the service company, the result yielded no surprises. In the areas of component quality, overall construction, technical design/layout, electrical standard and end-product quality, Reconair scored in the high 80's and 90's percentage wise. There were only two areas where the manufacturing plant scored as low as the mid-40s percentage wise. These were "aesthetics/design concept" and the related "finishes".

So, what the Reconair exercise has indicated is that, product-wise and in terms of quality and technical excellence, they have got the package right. All that's required now is that they get the aesthetics up to an equally-high standard. With that done their programme of import-substitution will take on a new impetus while their efforts on the export market — which are already showing results — will also lead to substantial sales.

• Two further "open days" to invited guests are planned for early December. The first is on 4 December to which contractors will be invited with a follow up the day after for consultants. A similar "questionnaire" exercise will be in use on both days.

• *Garvin Evans, Garvin J Evans with Fred Cooney, Chairman of the Reconair Group.*

• *Noel Traynor, N J Traynor & Ptnrs with Stephen Fennell, Reconair.*

• *Noel Traynor, N J Traynor & Partner with Brendan Carroll, Reconair.*

• *Ted Chandler, McCarthy & Partners with Tom Young, J A Kenny & Parnters; John Sullivan, Reconair and Martin Jones, BEMRA.*

• *John Cathbert, John Cathbert & Assocs. with Rory Walsh, Reconair.*

• *Barney Woods, J A Kenny & Partners with Brendan Deane, Office of Public Works and Tom Fleming, Managing Director, Reconair Ltd.*

• *Brendan Carroll, Reconair Manufacturing with Oliver Reddy and Tony Ingram, VMRA: and Bill Ahearn, Reconair Manufacturing.*

https://arrow.tudublin.ie/bsn/vol24/iss12/1
DOI: 10.21427/D7TD7F

'Natural Gas — It Must Be Made Cheaper For Industrial Users'

Extracts from a talk by Con Power, Director of Economic Policy, Confederation of Irish Industry, at the Autumn meeting, 1985, of the Irish Gas Association held in The Berkeley Court Hotel, Dublin, on 9 October.

"Irish industry is greatly concerned about the absence of a comprehensive national energy policy which would encompass all known and projected potential sources of energy supply. The absence of such a policy is one of the most serious public policy deficiencies in Ireland at present, and it is one to which the Government must direct attention in a co-ordinated and facilitative manner. The Government must address economic, social and strategic issues. All three elements are essential in a comprehensive national energy policy, but it also essential to clearly separate each of the three issues, and to ensure that economic factors predominate when it comes to making decisions which influence price competitiveness of industry.

"The reason for this comment is the very pragmatic one that economic growth, job maintenance and expansion, and the maintenance and enhancement of living standards, all depend ultimately on our national capacity to achieve an increase in the added-value of production of goods and performance of traded services by enterprises — public and private — which are internationally competitive. The bottom line is the ability of Ireland to design, produce, and market goods and traded services whose price and non-price qualities form a more attractive package than those of our competitors abroad and in our own home market. The unit cost of the energy input for industry is one of the significant factors which determine international industrial competitiveness, particularly in those industries which are high energy users such as cement, steel, mining, creameries, some segments of the chemicals industry, synthetic fibres, glass production, and other process industries.

Any discussion of industrial use of natural gas must take place within the context of the development of a comprehensive national energy policy, and within the context of an industrial development drive which has a focus on the international competitiveness of goods and traded services. Any discussion about natural gas with a lesser focus is likely to address only short-term issues and to fall ultimately on deaf ears.

Availability of natural gas

The current situation in Ireland is that about two-thirds of our natural gas is used for electricity generation; about one-fifth for fertilizer production; and the remaining ten percent by industry, commerce, and domestic consumers. Current availability is based upon the projection that the Kinsale Head reservoir will be exhausted at some stage towards the end of the present century. It must be remembered that the use of natural gas for electricity generation, based on current policy, is primarily as an aid to the ESB in making the transition to coal. There are, of course, other policy considerations relating to the use of natural gas for electricity generation, and these will be addressed later.

"The main point to address at this stage is the expoloration policy. It is very hard to imagine that there will be no more natural gas finds over the next decade if the conditions exist which make it attractive to drill more exploration wells. There have been some tentative signs in the recent past which seem to support that view. The situation is not helped, however. by the fact that exploration activity in Irish waters in recent years has been very low. In 1984, there were, for example, 200 holes drilled in the British section of the North Sea, there were about 20 holes drilled in the Danish section of the North Sea, but there were only seven holes drilled in Irish waters.

Irish industry would like to see a target set which would encourage the drilling of up to 20 exploration wells each year in Irish waters, a target which would be about three times the current number, and this should significantly increase the probability of further signs of natural gas in Irish waters. Government should sit down with exploration interests and work out a policy framework for the achievement of this target.

Use of current gas supplies

"Pending the coming on stream of Money Point, natural gas has now become the most important fuel used by the ESB. It accounts for about half the fuel input for electricity generation, and it has been used primarily as an alternative to fuel oil and as an aid to the ESB in making the transition to coal. It has, of course, an important role in providing operational flexibility to the electrictiy generation system whereby combustion turbines are available to provide a substantial proportion of the daily load at very short notice, and there is the strategic capability of maintaining power to the electrical distribution grid in the event of an international disruption of the availability of other fuel supplies.

"The fact of the matter is, however, that once the ESB replaces natural gas with coal it will be essential to find an alternative use for that gas. The quantity of gas for which an alternative use will require to be found is substantial. The requirements of the ESB are expected to drop to about 10% of current level. If this usage of gas is not taken up by other industrial users, the rate of depletion of the Kinsale field will drop from about 6% per annum to about 2% per annum thus extending the life of the field by 16 years. It is virtually certain that more gas will be found long before then so that there is an urgency in ensuring alternative use for existing supplies which will be made available from the redeployment of the ESB's current allocation.

The Managing Director of Aughinish Alumina pointed out in a talk which he gave to the Irish Exporters Association in Cork on 20 September, 1985 that it would take seven large customers of the size of Aughinish Alumina to replace the current usage by the ESB, and he pointed out that customers, large or small, would not only have to physically exist, and be lined up to be connected, but they would also have to be interested on the basis of price.

IRELAND'S NATURAL GAS - 10 YEARS ON

Pricing policy

"Nobody in industry suggests that natural gas should be given to industry at give-away prices. Industrial users should, however, be offered gas at a price which will yield a reasonable profit to the State while, at the same time, ensuring the survival and development of many energy intensive manufacturing enterprises. The present position is that the State is making a considerble profit on its sales of natural gas. The annual report of An Bord Gais for 1983 stated that the Bord paid IR£65 million to the Exchequer, which payment amounted to a profit of 9p a therm. The view of the Confederation of Irish Industry is that the cost of gas appears to be about 13p a therm, so that the selling price in 1983 was about 22p per therm. The evidence available to the Confederation is that industrial users are being quoted prices of up to 100% above this level, thus giving a quotation of around the oil equivalent price of 45p to 50p per therm.

"The suggestion made by the Confederation of Irish Industry is that natural gas could be made available at something around 33p to 35p per therm at maximum, although it is envisaged that there should be significant discounts for major industrial users as is the position in countries with which we compete on international markets. This would give a significant profit to the Exchequer while at the same time offering energy to industry at a price below the oil equivalent price. There are compelling macro-economic reasons why this action should be taken when one considers that as a small island this country suffers from many infrastructure cost disadvantages as a location for some types of manufacturing industry.

"This is particularly true for heavy industry, and for many types of energy intensive industry. Part of the infrastructure cost disadvantages which are necessarily associated with a small island nation could be offset by implementing a pricing policy for our natural gas which would offer both a competitively-priced energy source to Irish industry and a handsome return to the Exchequer. Pricing policy within the context of a national energy policy might also provide a mechanism for distribution of part of the national economic benefits of natural gas to industrialists who cannot be connected to gas and who will necessarily have to continue to use other energy sources.

Extension of the gas pipeline

"The Confederation of Irish Industry has consistently called for the development of a comprehensive natural gas grid. The reason for this is the view held by the Confederation that a gas distribution grid is an essential element of a modern industrial infrastructure. At present, there is a gas distribution grid in Europe which stretches from the USSR to France, and from Algeria to Denmark. The Confederation would like to see a medium term plan prepared to link the developing Irish gas distribution network to the rich gas fields of the North Sea via the UK grid. The Confederation believes that this should happen as soon as it can be shown that the development would be economically viable, and it would mean that Ireland could import or export gas as required.

"Within the nation, the Confederation believes that the grid should be extended to towns and cities including Limerick, Waterford, Drogheda, Dundalk and Galway. The extension of the grid would provide hundreds of jobs in itself, and it would enable an intensive campaign to be mounted to supply natural gas to manufacturing industry so as to ensure a continuing outlet for existing natural gas supplies. It would enhance the competitiveness of industry and, consequently, achieve a higher level of industrial output and employment. With new discoveries of natural gas, it is likely that, by the early 1990s, it should be possible to supply one-third of our final energy consumption (excluding transport) from natural gas sources in an extended Kinsale field. If we look at figures published by the UK Department of Energy for 1984, we find that gas already supplies over a third of all the heat used by British industry — (1984) gas 36.2%, oil 26.5%, solid fuel 21.4%, and electricity 16%.

"We should now be planning to provide the national grid in order that this potential can be become an operational reality. The viability of such a project can be proven, and the gas industry itself is well capable of providing the evidence which can be objectively checked by the Department of Energy and the Department of Finance. The project is clearly an area of national development which would fully justify the investment of public funds, the investment of private sector funds, and investment by individual citizens in the equity of the operations through placement of part of the equity of An Bord Gais on the Stock Exchange.

Public opinion

"In order to round-off the presentation from an industry viewpoint, it is important to ask the question whether or not public opinion would welcome an extension of the use of natural gas, as a public acceptance of this is a necessary prerequisite to political action as in the case of any other major public policy area.

"A public opinion survey was conducted in each of the 10 Member States of the EEC at the request of the Commission's Directorate-General for Energy in October, 1984. A set of 20 questions was put to a national representative sample of the population aged 15 years and over, and each individual in the sample was interviewed at home by a professional interviewer.

"The three key issues which were explored in detail were: public perception of the energy situation in each Member State, attitudes to energy policy, and the public's assessment of each individual source of energy, particularly nuclear energy. Opinions on the various sources of energy were sought by way of answers to three questions, and the rankings achieved by natural gas, are given below. The five energy sources considered were solid fuel, oil, natural gas, nuclear energy, and renewable energy sources, with a sixth category for "don't know".

"(1) The energy source most stable in price — 35% (the highest ranking achieved by any of the 5 sources, the lowest being 3% for nuclear energy, with 18% "don't know");

"(2) The energy source

• *Pictured at the Irish Gas Association Conference entitled "Ireland's Natural Gas – 10 Years On" which was held in the Berkeley Court on October 9th were: Per Olesen, Administrative Director, Naturgas (Denmark); Nevin Dowling, Chief Executive, BGS; Con Power, Director of Economic Policy, CII; and Bill Roberts, President, Irish Gas Association.*

IRELAND'S NATURAL GAS - 10 YEARS ON

The Confederation of Irish Industry has consistently called for the development of a comprehensive natural gas grid. The reason for this is the view held by the Confederation that a gas distribution grid is an essential element of a modern industrial infrastructure.

offering the greatest security of supply — 33% (the second highest ranking achieved by any of the 5 sources, the highest being 39% for solid fuel, and the lowest being 4% for nuclear energy with 11% "don't know");

"(3) The energy source presenting least risk of pollution — 30% (the highest ranking achieved by any of the five sources, the lowest being 4% for nuclear energy, with 15% "don't know").

"The public opinion poll in the EEC insofar as the answers relate to Ireland auger well for the existence of a climate of public awareness which would be supportive of further developments in the use of natural gas. Those developments can only be in the industrial area because the decision has already been made to phase out natural gas for electricity generation, and domestic consumers do not have the capacity to consume more than about 10% of our natural gas resources.

The future

"The EEC Commission, in a Communication to the EEC Council of Ministers dated 28 May, 1985 stated that the objective in relation to natural gas for the period up to 1995 is "to maintain and if possible increase the market share of natural gas on the basis of a secure and diversified pattern of supplies". This overall objective for the entire EEC is based on the fact that, as at 1983, natural gas accounted for about 18% of total primary energy consumption. The EEC Commission spoke about the advantages for consumers, for environmental quality, and for overall diversification of the Community's supplies, and on the basis of an assessment of the advantages the Commission formulated the policy objective which was mentioned earlier.

"The point must be emphasised again and again that industry is the main potential consumer for natural gas, and it is essential that natural gas be marketed strongly to industrial consumers at competitive prices which are in line with prices in competitor countries such as the U.K. and France. It is important to emphasise that industrialists in a number of our European competitor countries obtain their natural gas at 20% to 30% below that which Irish industry pays.

"The call by Irish industry for an increased allocation of natural gas to industry at competitive prices mirrors the views of the EEC Commission, and it is the hope of Irish industry that the views of the Commission will be incorporated into the comprehensive national energy policy which the Confederation of Irish Industry calls upon Government to formulate at an early date."

face to face with Dick McElligott

On 24th October the CIBSE organised a lively meeting on "Mechanical and Electrical Contracting Today — a Contractor's View" at which Dick McElligott, Managing Director of FKM Engineering Ltd., articulated the problems shared by many services subcontractors.

Indeed, he put one of the main bones of contention more forcibly during the ensuing discussion by saying: "It is ludicrous that a main contractor providing a God-damn shed around our services — which make everything function — has total control over payment for our work."

Eoin Kenny referred to the contractor's 5% prompt payment discount which, theoretically, can only be availed of if the contractor pays within seven days. Eamon O'Brien asserted that the subcontractors' problems and remedies lay in their own hands — he had never seen the discount time limit enforced and why put it in if it is not enforced, he asked.

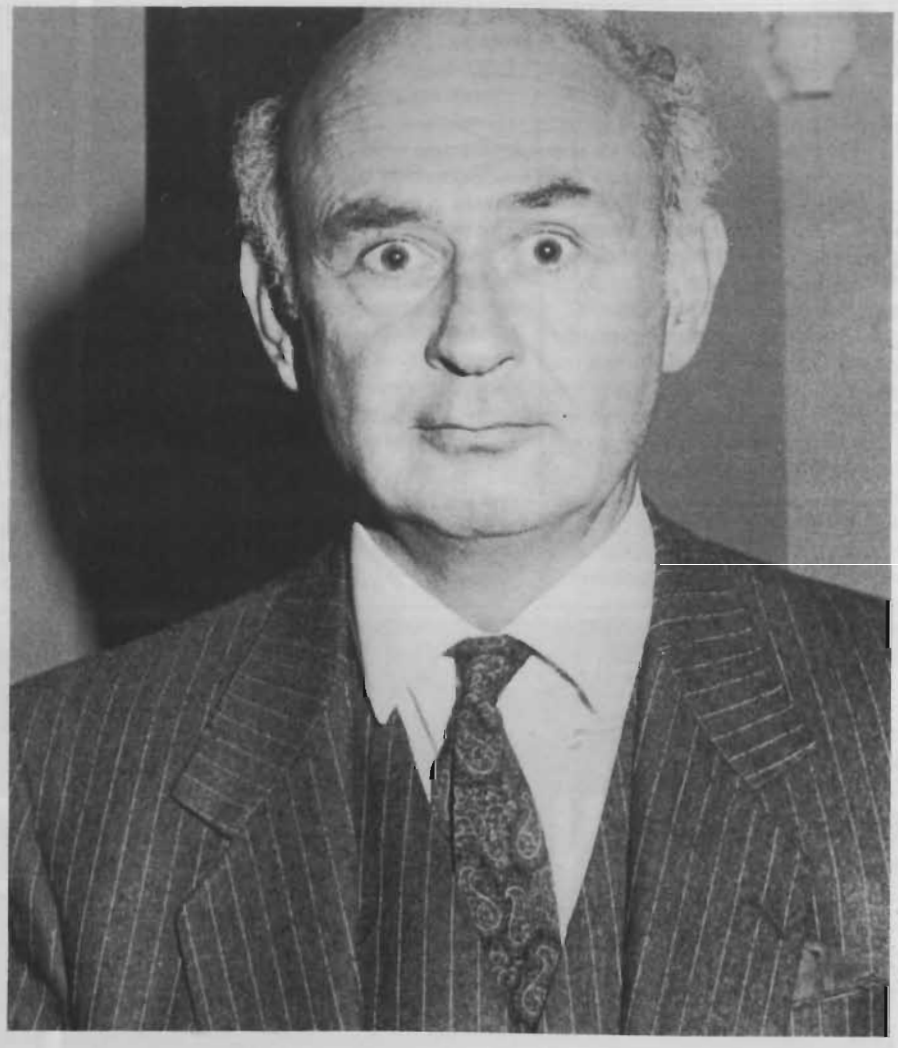
Michael O'Doherty provoked laughter when he asserted that "In Ireland, consultants are expected to give too much information — we are literally carrying the contractors" but he responded quickly with: "You may laugh, but in England the contractor does all the detail and workshop drawings."

In regard to retention money, Michael O'Doherty claimed that "Irish contractors, nearly to a man, complete 99% of the job. Also, they have always been obliged to provide technical manuals and record drawings, but they didn't do it."

Dick McElligott's paper was as follows:

"In considering services contracting today, it is pertinent to briefly consider the development of the industry over the last four decades in this country.

In the late 1940's and well into the 1950's the indigenous Irish industry was mainly involved with plumbing, lead work and copper work. Any central heating and mechanical work of consequence was deemed to be the prerogative of overseas companies who were established here, in particular Mathew Hall and Hadens. With these weighty firms it was very difficult for our own national industry to establish itself. Due in no small way to the efforts of people like Tom Finley, Chris Jones and others, a determined effort was made to have the national contractors recognised as being emminently capable of carrying out the work, at that time allocated through the major alien companies. It should also be remembered that these large companies enjoyed special terms and conditions from the supplier and manufacturer. Bit by bit the native industry became established



and resulted finally in taking over all the major work available in the country — there have been sporadic forays since the late 1950's by Hadens and Mathew Hall (in particular their involvement in the Ballymun Tower development and also in Asahi) but generally the Irish contracting services industry has been instrumental in establishing itself as a capable and formidable force.

It is interesting to note also that the development of companies here coincided with the rapid industrialisation of the country that took place through the 1960's and 1970's and I feel that we should be proud to say that the industry here has always got to be considered when any project, irrespective of how particularly intricate or unusual, is being considered within the country. In recent years we have had the massive development of Aughinish and at no stage could we envisage that project taking place without a very high native profile. Irrespective of our competitive approach to each other, we must all applaud the involvement of H.A. O'Neil's and the success of their involvement in that particular operation.

As the demand of the industry has developed, so the industry itself has adjusted. One remembers the incredulity with which air conditioning was first considered and is now treated as a total matter of course. The maturity with which the contractors in this county now approach any challenge must be admired and I feel that we should not be remiss in whispering that from the roof tops, if not shouting about it.

Coincidental with the industrial development of the country, we have had the involvement in projects here of the large multi-national design, contract and build companies. In particular we have had Kellogg International, Bektel, Catalytic and Jacobs International among others

involved here. Our industry has adjusted to the methods, demands, standards and conditions laid down by these companies and has met them head on, eventually evolving systems of working together. In all cases, projects have been satisfactorily concluded with mutual admiration on both sides, however grudging it may be in certain instances.

With the development of sophisticated and demanding projects and the basic central heating radiator system, while still with us, almost becoming a nostalgic memory, contracting has had to adjust dramatically to the demands of these projects. The history of recent years will show that adjustment has taken place and that our trade in general has emerged with credit, and our workforce and management techniques have broadened and enhanced our general competitiveness.

When the multi-national design and management companies started into this country, some of them establishing permanent offices here, there was general concern among the professional bodies that these people were now taking over some of the cake to which Irish consultants felt they were entitled. I think it is reasonable to say that the Irish professional body was slow to react and in many instances lacked the credibility to compete with these companies on an equal footing. Even to this day, in particular with regard to the pharmaceutical and food industry, companies setting up here look abroad or to their native countries for the design facilities that they require. In my opinion, our professionals have been remiss in not adjusting or developing to the same extent as the contracting firms have had to, so as to compete and deal with these companies on an equal footing.

Today the euphoria of the late 1960's and 1970's is gone and we find ourselves in an extremely difficult trading position. There is no doubt on the basis of recent history that we are part of a declining industry and while the general reduction of the major building companies is almost inevitable, it should be possible for the service companies to survive. All sources of work today are mainly from the State, either through the health boards, Office of Public Works, education authorities or industrial development and to a much lesser extent from developers, institutions or companies.

The general world recession and the peculiar difficulties in this country — with a particularly high level of unemployment creating all sorts of social problems — have vastly reduced funds available for development. We have listened for many years now to the cries of anguish from certain parts of the Construction Industry Federation, as recent marches will indicate, but practically all of this stems from the housing sector which does not have a great involvement for contracting services people, either professionally or contractually. The massive refurbishment programme that has been launched in other countries to cater for the energy requirements of the 1980's — with conservation totally ignored when many buildings were designed and erected in the 1950's and 1960's — is unlikely to materialise here to any great extent. It is inevitable that we must accept a general diminution of our work load and while there will be a demand for services, it will be of a lesser nature and it probably now behoves us more than ever to look abroad.

Over the last ten or 15 years, some companies here have gone abroad, particularly to the Middle East, where the dubious attractions of large notional profits quickly became a very difficult and particularly vulnerable area of the world in which to work. The conditions laid down by the local governments are quite onerous and the normal contract laws and procedures that we know do not obtain. Since then a reappraisal has taken place, partly coincident with the general reduction in oil revenues in the Middle East and some companies are now looking at our much close neighbour, namely the UK.

Any venture abroad has its difficulties and in no way can such ventures be deemed to be easy money, but at least it is heartening to know that people have the initiative and temerity to try — and by the end of a hard slog eventually turn the venture into a worthwhile exercise.

Here at home our difficulties increase and the general structure of the industry and the set-up of the contract is coming more and more into question. At present the various forms of contract we operate under, whether they be the RIAI or the GDLA, have aspects which are becoming more and more unwelcome. The services part of any contract now must be the single biggest element in the overall bid package, yet we are still operating under an outmoded system where we have a subcontract with a main contractor and all payments to us come through him. Recent failures of main contractors have hit our industry very hard and it urges us to make some effort to change what is really an archaic system of doing business. Various attempts have been made to establish a working committee between the professional bodies — in this instance the consulting engineers and the contractors — so that a mutually beneficial system modus could evolve.

While at all times as contractor one has to be live to be implications legal or otherwise of the contract, I feel it is true to say that the vast majority of the professionals dealing with the various projects under their control have a very rudimentary knowledge of the full implications of the contract procedure. The system of recommendations based on progress claims going to a surveyor and eventually to an architect, for simplification, should follow a particular set pattern, but that unfortunately is the ideal world we would like but it does not happen in reality and we find that all of us have people allocated in our offices to the constant pursuit of payment which one would hope would not be necessary. This of course only adds to overheads and we further find that in the event of a hiccup in the payment system there is very little help available or volunteered by the professional bodies. This is a matter of serious concern to us. When will people appreciate that we are all involved in the one area of operations? Our very livelihoods are largely dependent on our relationships with each other and while we are not asking the consultants to forfeit any standards or ethics, they should realise that productive co-operation can only benefit the trade as a whole.

At this juncture it is appropriate to highlight some of the areas of contention. Today in most Government contracts bills of quantities do not form part of the contract, giving rise to a ludicrous situation where people are paid for producing a document whose integrity cannot be wholly relied upon.

Tendering periods are sometimes unacceptably brief and incomplete documents are issued, all of which totally ignore agreements made between the consultants' association and the contractors whereby specific minimum tendering periods were established based on the anticipated value of the works.

In many instances there is a serious divergence between the conditions of the main contract and those set-out in the services documents. While clause three of the sub-contract document affords us some protection, it would be far better if unanimity prevailed throughout the contract.

The handling and expenditure of P.C. sums has long been a serious contention. Suppliers tender and are appointed by the consulting engineers in many cases without due reference to the terms and conditions of the contract or without the initial approval of the contractor. We then find ourselves dealing with an appointee who insists on terms that are incompatible with our contract and whose responsibility ceases before the end or even sometimes the beginning of the defects liability period. Gentlemen, for all our sakes could we be a little more at one with each other?

Our legislators seem to think that housing and then more housing is a job panacea for our industry, yet none of us in services contracting would put much bread on the table out of that scenario. It is essential that we join together in pursuing ways to ensure that our industry can at least survive if not to prosper — and there are large areas in the tourist and food processing industries where appropriate and productive works could be initiated to the benefit of the community and country as a whole.

It would be remiss of me not to mention the development of our relationships with the unions. Various and unrelenting confrontations occurred right through the 1970's but now there is a situation of mutual respect coupled with the maturity in negotiation which has benefited all by virtue of the agreements that are regularly established and generally adhered to. The Industrial relations aspect of our business has on the whole been quite successful and hopefully will continue in that vein.

First World Congress on Heating, Ventilating and Air-Conditioning

CLIMA 2000 — 'Artificial Climate Industry'

By Patrick J Minogue

CLIMA 2000, held in Copenhagen on 25 - 30 August 1985, was the first world heating, ventilating and air-conditioning congress. The scope of the Congress and the number and variety of contributions reflected the rapid developments of this industry, particularly within the past decade. In this context, it was noteworthy that the first plenary speaker to the Congress suggested that the HVAC name was rather old-fashioned and that it was time to find a new, more meaningful, internationally valid definition of the discipline. His suggestion was that the HVAC industry should be more appropriately known as the Artificial Climate Industry.

The author identified the twin driving forces of this industry over the next 20 years as being the provision of comfortable artificial climates on the one hand and the efficient use of energy on the other. Whatever about the appropriate title for the industry, the proceedings of the Congress tended to support his view regarding these forces.

The Congress was attended by some 1200 participants from 38 countries. Over 400 papers were presented at three sets of parallel sessions and associated poster sessions. In addition, nine invited papers on selected topics were presented at plenary sessions and nine workshops on specific subjects were held. An international exhibition — "CLIMAEX" — ran concurrently with the Congress. For those with real stamina, a number of technical visits were arranged. Thus, there was something for everyone at the Congress and the proceedings cannot be summarised in a single article.

It has been claimed that more research and development work in the field of heating and ventilating has been carried out during the past 15 years than in all of the previous history of the industry. This was reflected in the range of papers presented at the Congress. In general, the papers were research-orientated rather than application orientated. This is not surprising given the amount of research work recently undertaken and currently underway and the fact that the regular three-year research symposium — that held by the CIB Working Group on Energy Conservation — was incorporated in this Congress on this occasion.

The papers covered a wide variety of topics and are available in five separate volumes from the Congress organisers VVS Kongres, Copenhagen. They are grouped in subject categories as follows:

- Building Design and Performance;
- Energy Management;
- Indoor Climate;
- Solar Energy — Active and Passive Systems;
- Heating Ventilating and Air Conditioning systems.

These five volumes can be seen as a record of progress in research and development work across the whole field over the past few years.

If the submitted papers referred to the past — albeit the recent past — then it can be said that the workshops dealt primarily with current preoccupations and the plenary papers attempted to look forward to future developments. Since these were less constrained with regard to the time available for development of ideas and for discussion, they proved the more interesting and useful elements of the Congress. The plenary papers are available in a separate volume entitled "Future Perspectives". Unfortunately, there is no formal record of the outcome of the various workshops held at the Congress. The remainder of this report highlights some of the main themes of the Congress — at least in the view of this participant.

Energy conservation: A central message from the Congress was that continuing reduction of energy use and more efficient use of energy must remain fundamental features of national policy and building design strategy. This was a feature of opening addresses on behalf of the sponsoring organisations, at least two plenary papers and much of the discussions at the Congress. The view was put succinctly by Gerard Groff in his plenary paper on Building Performance and Energy Standards when he stated:-

"A fundamental fact still exists. We live on a finite planet whose natural energy resources will someday be gone. So one of the challenges, opportunities and even responsibilities of engineers, designers and consultants is to design buildings and systems that use the least energy possible for their intended functions. There should be no place for the word "complacency" in their vocabularies when it comes to energy."

Research into practice: Another major theme was the need to move research results into practice. This was evident in a number of areas under consideration. Examples are the improvement of energy efficiency, the greater use of computer-based models and the improvement of indoor air quality. Clearly, two separate approaches were envisaged. On the one hand, the extension and improvement of mandatory and recommended standards were envisaged. This relates particularly to energy efficiency standards and standards for indoor air quality. On the other hand, a significant requirement for continuing education was identified. Areas noted were use of computer based models and design techniques, energy management and use of energy mangagement systems and development of a more integrated approach to building design.

Air quality: Air quality was identified as one of the most

It has been claimed that more research and development work in the field of heating and ventilating has been carried out during the past 15 years than in all of the previous history of the industry. This was reflected in the range of papers presented at the Congress.

* *Patrick J Minogue is a Senior Research Officer, Construction Division, with An Foras Forbartha.*

First World Congress on Heating, Ventilating and Air-Conditioning

important topics requiring further research leading to air quality standards for use in building design. Dr McNall of the National Bureau of Standards, USA, presented an invaluable revew of the current state of knowledge and outstanding problems in this area in a paper entitled "Indoor Air Quality Status Report". He concluded that a significant amount of work needs to be carried out before two simple but pertinent questions can be answered with confidence. They are: How do I determine if I have an indoor air quality problem? and, if I do, what can I do about it?

Computer-based models as design tools: The importance attached to this topic was reflected in the fact that over 40 papers on the topic were presented at the Congress. In addition, there was an excellent plenary paper on Building Modelling and Simulation for Energy Conservation and an interesting workshop on the applicability of simple models. A general conclusion was that sufficient models and adequate simulation techniques exist for most applications.

Current difficulties relate to choosing between the various models. What is required is improved software and better documentation of models. In particular, a plea was made that all models should indicate the purpose for which they were developed and the known limitations of their use. Too often, models are used in applications for which they were not intended and for which they are not appropriate.

It is clear that with the widespread availability of design-orientated software and powerful relatively cheap computer hardware that the use of computer-based techniques at the design stage has become standard in the US and is rapidly becoming so in Europe. In this context, the workshop on the role of "Simplified Models" in relation to energy calculations was particularly interesting. A "simplified model" was defined as one that allowed the necessary calculations to be carried out by hand. Surprisingly, in this era of computer based models, it was generally felt that there was still a significant role for simplified models.

These were identified as some aspects of all stages of design, eg where average conditions or quantities are being considered, implementation of standards and regulations and in education to help in the understanding of building physics. However, such models were not considered suitable for design decisions concerning short-term day to day performance and for consideration of design options in general.

Paradoxically, it appeared that the use of simplified models required greater experience so that the limitations and applicability of the underlying assumptions are fully understood. It was emphasised that simplified models are not necessarily hand calculated — in fact, many widely available computer programmes are based on simplified models. Conversely, a well written programme may be simple to operate but may be based on a quite complex model.

Buildings in use: The importance of the building user in ensuring proper performance and energy efficiency was underscored again and again during the Congress, eg in consideration of results of energy saving programmes, in results from monitoring in occupied houses and in relation to the use of energy management systems. Papers presented showed clearly that the occupants or those in charge of energy use can undo much of the design effort to produce energy efficient buildings.

The need to conserve energy together with developments in control technology and micro-computer based simulation techniques mean that very significant developments in energy management and control are taking place. Trends are towards adaptive controls, decentralisation of control towards the point of energy use, controls which are simple to use (even when the building system is complex) and controls which give feedback.

New products and processes: As stated at the outset, this major international Congress reflected the rapid developments in the HVAC industry in the recent past and pointed the way to the type of developments which may be expected in the future. Yet, a number of more specific conclusions regarding new products and processes can be drawn from the proceedings. The following — some of which have already been mentioned above — come particularly to mind:-

- Ventilated facades/air flow windows reduce energy consumption and improve comfort in both warm and cold climates;
- Gas-fired condensing boilers are now reliable and energy efficient. Costs are coming down and, in many cases, they are already cost-effective. Oil fired condensing boilers still present problems, however — mainly associated with oil sulphur content;
- The use of computer-based design techniques is becoming standard with the widespread availability of low cost software and hardware;
- Adaptive controls and "intelligent" energy management systems are become available. As yet, very few, if any, alternative systems are really compatable with each other;
- In hot water based heating systems, the trend is towards lower temperatures. This increases flexibility and improves efficiency and applies both to district heating and individual systems;
- Significant developments in PVC heat exchangers and rotating heat exchangers for small ventilation systems were reported.

Conclusion: There can be little doubt that CLIMA 2000 was a success, whether judged in terms of submitted papers, attendance, or the discussions and exchange of ideas which took place during the Congress. In some ways, it represents the coming to maturity of the HVAC industry although it was clear that this industry is continuing to develop at a rapid pace. If the experience of this Congress is anything to go by, one can but look forward to the next one which takes place in Sarajevo, Yuroslavia, in 1989.

Trends are towards adaptive control, decentralisation of control towards the point of energy use, controls which are simple to use (even when the building system is complex) and controls which give feedback.

A central message from the Congress was that continuing reduction of energy use and more efficient use of energy must remain fundamental features of national policy and building design strategy.

NEWS • CIBSE NEWS • CIBSE NEWS • CIBSE NEWS • CIBSE

LADIES EVENING

John Player Theatre was venue for the CIBSE Annual Ladies Night. Take 4 Productions presented a revival of the most successful musical "Promises Promises". This show is, of course, based on the screenplay the "Apartment".

Once again CIBSE booked the entire hall on the opening night and served a wine reception for the large attendance before curtain up and a most enjoyable show.

'Ladies Night at the Theatre' is most likely to become an automatic choice for inclusion in future CIBSE annual programmes.

• *LADIES EVENING: Seamus Homan, with Jean Moloney and Greg Traynor.*

ANNUAL DINNER

This year the CIBSE dinner was held in the august halls of Trinity College Dublin. The refurbished dining hall proved a most impressive and prestigious setting for the capacity attendance of two hundred and fifty diners. Unfortunately many more had to be disappointed because it was booked out long beforehand.

Mr Barry Desmond, Minister for Health, was guest speaker and Mr Jack Torrance, President of CIBSE also attended.

• *ANNUAL DINNER: Teddy Bourice, Chairman, MEBSCA; with Chris Jones, President, CIF; Jack Torrance, President, CIBSE; Paddy Clonan, Chairman, CIBSE, Republic of Ire Branch.*

GOLF OUTING

This annual event certainly lived up to expectations with yet another full house. Even the weather was excellent. Seventy golfers contested the prizes generously donated by our sponsors and more than two hundred diners attended the evening social function.

CIBSE would like to take this opportunity of thanking the sponsors whose generosity contributed in no small way to the success of the event.

MAIN PRIZEWINNERS:
Chairman's Prize: Michael Moloney (17) ... 37pts; Veha Trophy: CIBSE Rep. of Ireland ... 41 pts; O'Neill Cup: T.W. Wheeler (17) ... 40 pts; Ladies Prize: Pat Egan ... 25 pts.

LIST OF SPONSORS:
Finheat, Trane, Wilo, J.J. Dohertys, Masterair, Champion, D. Chambers, IBS, Hevac, Super Jet, Emerson Bros, Ray Elliott, Leo Lynch, B. Sweeney, VMRA, Spirax, M. McKeon, Veha, H. O'Neill & Co., Pump Services, Glowheat, R. Jacob, J. Tierney, FKM, Holfeld, Brown Boveri, Redbro, Air Techniques, Quadrant, Coolair, Delap & Waller.

• *GOLF EVENING: Paddy Clonan with T. Wheeler.*

• *GOLF EVENING: Paddy Clonan with Eamonn O'Brien.*

• *GOLF EVENING: Paddy Clonan with Paddy Kavanagh*

https://arrow.tudublin.ie/bsn/vol24/iss12/1
DOI: 10.21427/D7TD7F

NEWS • CIBSE NEWS • CIBSE NEWS • CIBSE NEWS • CIBSE

FORTHCOMING EVENTS

Day/Date/Time	Venue	Activity
Fri. & Sat. November 22, 23.	Limerick	Regional Technical Visit .... Tour of Wilo Factory and Presentation on Glandless Pumps. Tour of NIHE & Wang Developments and inspection plant and services of particular interest.
Thurs., November 28. 6pm for 6.30 pm.	Engineers Club, Clyde Road, Dublin.	Lighting Evening "Lighting into the Nineties" Paper by Rudi Inhelder, Wotan Lamps.
Thurs., December 5. 12.30 pm.	Deerpark Restaurant Dublin.	Celebrity Lunch ... Guest of Honour, Mr Chris Jones, M.D., Jones Group, President CIF.

• *CONTRACTORS EVENING: PJ Doyle, HA O Neil, with Leo Lynch, PJ Lynch & Co; Dick McElligott, FKM; and Paddy Clonan, Chairman CIBSE; Rep. of Ireland branch at the CIBSE contractors night. See "Face to Face".*

New Products & Literature

Ridge Bolt Cutters

THE RIDGE Tool Company has recently introduced 12 new bolt cutters for cutting a variety of materials quickly and efficiently.

The two models — a centre cut version for general use and a klipper cut model for flush cuts — are available in six sizes with 1/2" - 11/16" capacities. Both lines offer traditional Ridgid product quality and are backed by the Ridge Tool Company's full life-time warranty.

The new units cut cable, wire mesh, rod, concrete form ties, steel strip, bolts and metal brackets with minimum effort. Large comfortable hand grips provide positive handle control.

(Enquiry Code No 40).

Indicator

A BRAND new Thermo-hygrometer — Model 323i — has just been launched by Trace Automation of Watford.

It measures relative humidity in the range +10 to +95% RH and temperature between 0 to +60 deg C. A unique feature is that it will also display in Fahrenheit. Operator selection is via a touch sensitive keypad.

The remote probe is connected to the intrument by a 1m long coiled cable, making it easy to use in inaccessible locations. It houses the temperature and humidity sensors, both of which give almost instantaneous response.

(Enquiry Code No 41)

Danfoss Total Control

THE HEATING and Ventilating Division of Danfoss has produced a new 4-page technical leaflet to provide ordering, operating, and installation information on

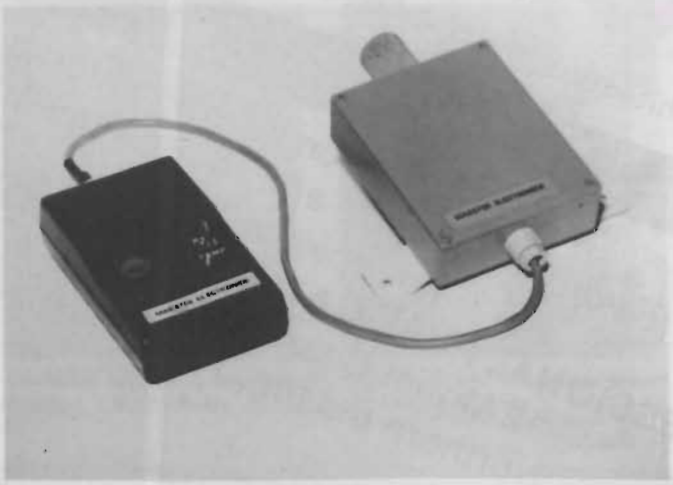
• *Trace Automation's new temperature/humidity indicator*

the company's ranges of TWK electric room thermostats and AT electric cylinder thermostats. These versatile electric thermostats are now available "off-the-shelf" from stockists and merchants in attractive bubble packs, and at highly-competitive prices.

The unique multi-purpose TWK electric room thermostat is also designed for use as a frost protection thermostat, and is suitable for almost every commercial and domestic application, be it simple "on/off" signals to a circulating pump in a wet system, direct energy control for electrical systems or fan operation in warm air heating and ventilation equipment.

The TWK will also regulate complex heating systems, operating both spring operated and fully electric types of zone valves.

(Enquiry Code No 42)



• *Maester's fixed humidity sensing system, H2000.*

Coolmation Bangs The Drum

A FEATURE of the new Rhoss CMA air-cooled condenser range is the enhanced corrosion resistance resulting from a body shell and access panel being moulded entirely from heavy-duty ABS. This virtually eliminates corrosion, provides a lightweight construction and simplifies siting.

Additionally, all eight models in the range are drum-shaped and attractively coloured to provide an aesthetic appearance and the ability to be conveniently sited without the need to conceal them behind screens.

Competitively priced, the range covers cooling duties from 5.23 kW to 28.48 kW with eight models — 04 to 24 — of which all except the 04 use the highly reliable and readily available Maneurop compressor. L'Unite Hermetique compressors are used for the 04, and are also well known, reliable and easy to obtain.

(Enquiry Code No 44)

Humidity Sensing

RECOGNISING THE need for a low cost fixed humidity sensing system, Maester (UK) Ltd have recently launched their new H2000 instrument.

Designed for use in all areas where humidity control is of prime importance the H2000 offers maximum system flexibility. Fixed sensors can be linked to a display and control panel or hand held monitor.

The range of 10% to 90% RH, and 0 to 70° C, is accurately covered. Multi-point units are available and sensors can be sited up to 300 metres from the control panel without any loss of accuracy.

(Enquiry Code No 45)

New Products & Literature

Pumps Detailed

A NEW A4, full-colour, six page, gate fold brochure on its complete range of domestic and commercial circulating pumps has been published by Sealed Motor Construction Co Ltd, part of Thorn EMI Heating Ltd.

Also included in the quality-design publication are details of SMC's Comet 2 control pack and Miniterm water manifolds while SMC's total commitment to quality control, design and development and product training are highlighted on the back page.

(Enquiry Code No 46)

Boulter Boilers

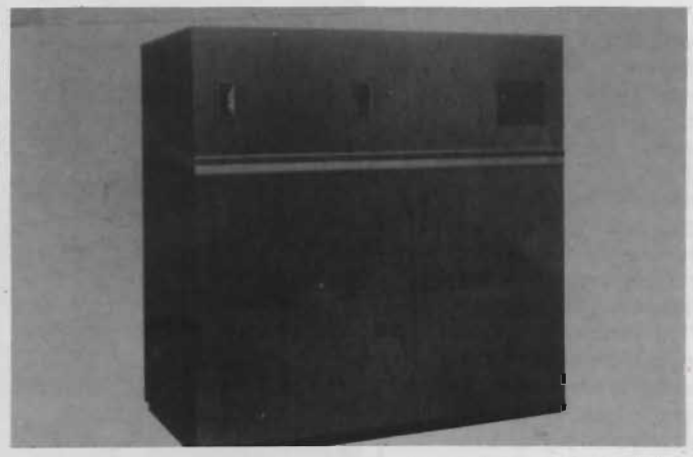
JUST INTRODUCED by Boulter Boilers of Norwich is the 'S' Series of Pathfinder PAL boilers for the commercial market. Featuring increased combustion efficiency of around 85%, plus ease of installation and servicing, this Series updates and replaces the original 'R' range.

The cast iron sectional boilers for oil or gas firing are available in 15 models. S1 comprises four models, 72,000 to 168,000 Btu/h output; S2, four models, 188,000 to 320,000 Btu/h; S3, seven models, 360,000 to 720,000 Btu/h. For industrial installations, the R4 is still available in eight models, 524,000 to 1,280,000 Btu/h.

The Series has been structurally designed to provide ease of replacement of equipment when changng fuel. When fired by oil, Pathfinder PAL will operate with most makes of burner. Boulter recommend a Reillo pressure jet burner, which has a proven record for dependability.

(Enquiry Code No 47).

• *New "Genesis" mobile generator sets from Hatz. The larger unit (top) incorporates the company's de-noised "Silentpack" engine. (Enquiry code No. 43).*



• *CHILLER BREAKTHROUGH – A breakthrough in mainframe chiller systems has been announced by Liebert International. A new model of the Liebert CSU3000 chiller system now offers exclusive dual capacity and a back-up coolant supply tank. The CSU3000 system protects critical mainframe computers by regulating and maintaining the flow of internal coolant. The new dual-capacity CSU3000 can now be increased from 2.5-ton to 5 ton capacity at the touch of a button, allowing the user to match computer growth efficiently without adding new environmental equipment. Precise regulation within these basic capacities is accomplished by a hotgas-bypass system. (Enquiry Code No 56).*

Air-Cooled Condensers

NEW AIR cooled condensers — including a range of ultra-low noise models — are now offered by Weatherite.

The complete portfolio of three separate ranges comprising a total of 75 models is the result of Weatherite's four-year involvement in the development of specialised air cooled condensers.

The company has now decided to launch the ranges of purpose-designed models with specific emphasis on operating noise levels.

(Enquiry Code No 48).

Energy-Saving Louvres

A NEW series of perforated diffusers and adjustable louvres for energy saving is available from Euro Register. Compatible with all suspended ceilings, Euro Register perforated diffusers offer many time and cost saving advantages.

The new steel diffusers are available in both square and rectangular configurations to easily locate in all known makes of suspended ceilings. The range is complete with an air pattern controller, and has a removable face for ease of cleaning. As an option they can be delivered with a room adjustable control damper.

Energy saving can be simply (and cheaply) achieved by the use of the latest Euro Register series of adjustable louvres. Fitted at the intake it allows fresh air to a ventilation or air conditioning plant to be shut off when not required. Remotely operable it economically replaces the need for separate expensive motorised dampers.

(Enquiry Code No 49).

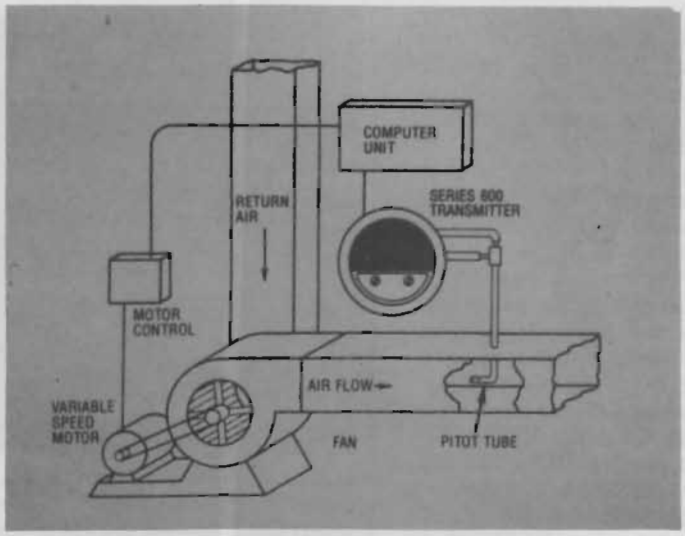
Dwyer Transmitter

IN VARIABLE air volume (VAV) HVAC systems, a computerised control provides precise adjustment of air volume to meet changing system needs with maximum energy efficiency. A Dwyer Series 600 differential pressure transmitter is used with a Pitot tube to provide a 4-20 mA signal to the computer.

New Products & Literature

The signal is directly proportional to the differential pressure developed across the Pitot tube as a function of air velocity. The computer reacts to any change in velocity by signalling the motor control to increase or decrease fan speed to maintain the required velocity.

The computer, taking inputs from other ambient condition sensors, will establish a new required air velocity and signal an appropriate adjustment in fan speed until the new velocity is achieved as sensed by the Pitot tube and transmitter.
(Enquiry Code No 50).



• *Illustration shows the principle upon which the Dwyer Series 600 differential pressure transmitter is used with a Pitot tube to provide a 4-20 mA signal to the computer.*

Conex 'BLUE PIPE'

A RANGE of fittings for the new MDPE (blue) pipe has been developed by Conex Sanbra Ltd.

Called the Polyconex 8000 range, the new design is produced in dezincification resistant (DZR) material, in the five standard metric sizes from 20 to 63mm. It includes a full range of 95 fittings, adaptors and reducers for use with the blue pipe or conversions between the blue metric, the black imperial pipe and copper tube.

Either with the ingenious Conex symmetrical polyring, or reversible capnut and body sleeves for SF8068 adaptors, the joint is simply and quickly made, the company says, unlike some other products on the market.
(Enquiry Code No 51).

Valve Grinder

KENT-MOORE have announced the addition of the KM 4083 air-operated valve grinder to their Serviceaid range of garage workshop products.

The KM 4083 is economically priced and operates from a standard airline. It features left and right alternate rotation to simplify valve grinding and reduce operator fatigue. Speed control is achieved through increasing or decreasing air flow.

High precision internal gearing parts and rugged outer casing provide workshop durability and the grinder is also supplied in a strong storage case. It comes complete with a number of suction pads and accessories to suit various types and sizes of valves.
(Enquiry Code No 52).

Carrier Flotronic Chiller

WALKER AIR Conditioning can now supply the new 30GB Carrier 'Flotronic' air cooled liquid chiller, with micro-processor control. This is a revolutionary packaged reciprocating chiller which has been developed specifically to achieve the highest efficiency when operating at part load. Carrier maintain that this is the requirement for 97% of a chiller's life, so optimising efficiency in this way will register noticable energy savings for the user.

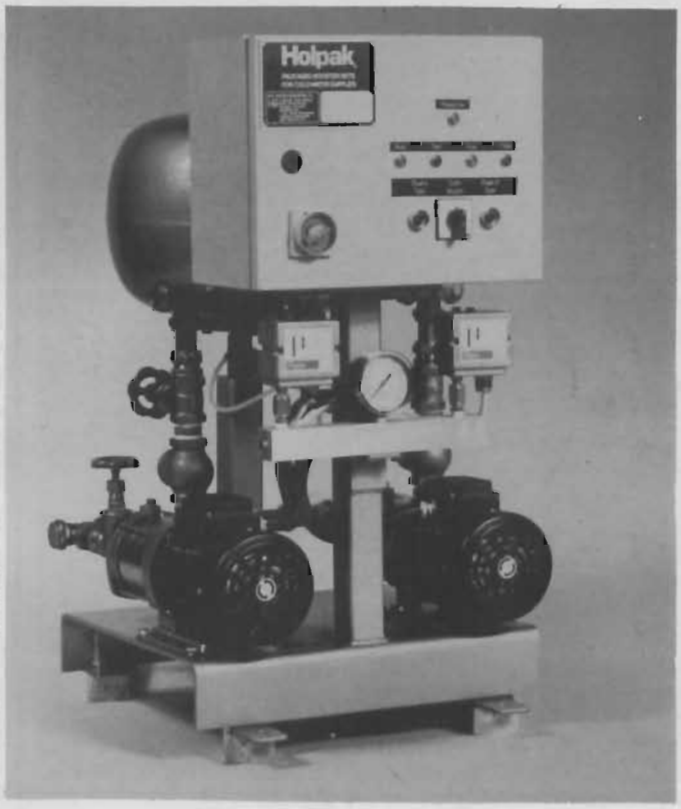
Apart from greatly increasing part load efficiency and reducing kW demand, other important features of the Flotronic include easier installation, variable water flow capability, efficient water temperature reset, and simplified integration with building energy management systems.

The microprocessor maintains total control of the entire refrigeration cycle, replacing previous electro-mechanical temperature and step controllers. The new Flotron Electronic Expansion Valve is a unique device which functions with the micro-processor intervening directly into the refrigeration cycle to provide absolute accuracy in temperature and refrigerant flow control.
(Enquiry Code No 53).

Holpak Boosters

HOLFELD PUMPS exhibited at the recent London H & V Show at the Olympia Centre where they launched the new compact Holpak HCH Booster Set which has been designed to combat the industrial, commercial and domestic water pressure problems in confined areas where space saving is essential. Compact and reliable, this unit occupies only 0.25m³ and has cost saving advantages over conventional booster systems.

On display were the full Holpak range of packaged booster sets, fire hosereel pressure booster sets and twin fuel oil transfer sets which are all available to the building industry from one



• *The compact, cost-saving Holpak HCH booster set from Holfeld Pumps.*

Terrain Solvent Cement. How the benefits stack up.

- **Fewer Fixings.** Terrain Solvent Cement cuts the number of fixings needed for soil stacks – saving costs, simplifying jobs.
- **Simple.** With easy-to-use Solvent Cement, you can pre-assemble soil stacks – dramatically cutting the work needed on site.
- **Compact fittings.** Gives the plumber more room for manoeuvre.
- **Versatile.** The huge range of Terrain fittings makes our soil stacks versatile as well as economical.
- **Reliable.** High quality Terrain soil stacks accommodate day to day expansion without leaks.
- **Strength.** Terrain Solvent Cement doesn't stick. It welds – permanently!

The Unbeatable Systems.

guaranteed irish

UNIDARE TERRAIN
SOIL-WASTE-RAINWATER-BURIED DRAIN

Unidare PLC,
Jamestown Road, Dublin 11.
Tel: 771801. Telex: 25141

Enquiry Code
No. 10

source.

Holpak personnel present at stand were John Seymour, Valerie Redmond, Frank Nugent and Annmaire Clarke who are all available to discuss product details and applications.
(Enquiry Code No 55).

Unidare Terrain Void Ventilator

A NEW ventilator has been introduced by Unidare Terrain designed especially for ventilating the void below suspended ground floors constructed of precast concrete beams or timber joists.

A purpose-built sealed unit, it is designed to meet the requirements of the NHBC, Local Authorities and Gas Boards. It has a free vent area of 4645²mm, in excess of the British Board of Agrement requirements. It is non-corrosive and, having non-reflective inner surfaces, is designed to inhibit organic growth in the void by eliminating light penetration. Fly screens are available to prevent ingress of insects or vermin through the ventilator.

The dimensions of the unit are such that the vertical duct lies snugly within the wall cavity while the horizontal ducts with air brick in position are exactly the width of a standard brick.

Air bricks are available, designed to fit into exterior brickwork beneath damp course level, as an integral component in the total unit. Standard clay air bricks can alternatively be used where desired, to match existing brickwork.

A major advantage of this ventilator is that where cavity wall insulation is carried out, either at the time the property is built or subsequently, the danger of void ventilation becoming blocked is eliminated.
(Enquiry Code No 54).

Jet Lag Frost Protection for Pipes

FROST AND below freezing temperatures are now with us, so it is time to make certain that pipes are given maximum frost protection with Jet Lag extruded semi-slit polyethylene foam sections, available from Marley Plumbing of Lucan, Co. Dublin.

Jet Lag is a really rapid, energy efficient method of lagging pipes. The sections are available in 1 metre and 2 metre lengths and wall thicknesses of 12.5mm, 15mm and 30mm. With Jet Lag there is no zip, no glue and no mess, simply ultra rapid installation with easy to cut and mitre foam which springs back to close around the pipe.

Jet Lag is suitable for a temperature range from --70° C to 90° C and its closed cell structure provides very low water absorption and vapour transmission, thus guaranteeing maximum frost protection. Open cell foams can soak up water and freeze solid — along with the pipes! — but not closed cell Jet Lag.
(Enquiry Code No 57).

https://arrow.tudublin.ie/bsn/vol24/iss12/1
DOI: 10.21427/D7TD7F